VASHKOV, V.I., prof.; PAVLOVSKAYA, L.G.

Control of epidermophytosis in an industrial enterprise. Vest. derm.i ven. 35 no.5:50-54 '62. (MIRA 15:5)

1. Iz TSentral'nogo nauchno-issledovatel'skogo dezinfektsionnogo instituta (dir. - prof. V.I. Vashkov).
(DERMATOMYCOSIS) (INDUSTRIAL HYGIENE)

PAVLOVSKAYA, L.N., kand. tekhn. nauk

Investigation of steady percolation in a three-layered formation. Izv. VNIIG 73:101-112 '63 (MIRA 18:1)

PAVLOVSKAYA, L.N., kand. tekhn. nauk; FEDOROVA, V.V., inzh.

Some problems of modeling the unsteady percolation of groundwater in a two-layer medium on electric grids of active resistance. Izv. VNIIG 76:169-184 '64. (MIRA 18:10)

PAVLOVSKAYA, L. N. Cand Tech Sci -- "Filtration designs ~~irrigation~~ of water-lowering installations [redacted]." Len, 1960 (Min of Higher and Secondary Specialized Education RSFSR. Len Polytechnic Inst im M. I. Kalinin). (KL, 1-61, 195)

CHUGAYEV, Roman Romanovich, prof., doktor tekhn. nauk; PAVLOVSKAYA, L.N., red.; SOBOLEVA, Ye.M., tekhn. red.

[Underground contouring of hydraulic structures]Podzemnyi kontur gidrotekhnicheskikh sooruzhenii. Moskva, Gosenergoizdat, 1962. 279 p. (MIRA 15:9)
(Hydraulic structures)

GIRSHKAN, I.A., otv. red.; ARABADZHYAN, I.R., red.; GORELIK, L.V., red.; YERYKHOV, B.P., red.; KYAKK, V.A., red.; PECHENKIN, M.V., red.; PAVLOVSKAYA, L.N., red.; SUDAKOV, V.B., red.; SHUL'MAN, S.G., red.

[Collection of reports on hydraulic engineering] Sbornik dokladov po gidrotekhnike. Moskva, Gosenergoizdat, 1961. 243 p. (MIRA 17:7)

1. Nauchno-tekhnicheskaya konferentsiya molodykh nauchnykh rabotnikov, 2d, 1961.

PAVLOVSKAYA, L.N., mladshiy nauchnyy sotrudnik

Seepage factors of water-lowering devices in the construction trenches of hydraulic structures. Izv.VNIIG 64:191-214 '60. (MIRA 14:5)
(Drainage)

PAVLOVSKAYA, L.N., inzh.

Yield of imperfect water-table lowering wells in case of a straight chain of wells sunk in a homogeneous band-shaped layer. Izv.VNIIG 59:210-214 '58. (MIRA 13:7)
(Wells)

PAVLOVSKAYA, L.N., mladshiy nauchnyy sotrudnik

Experimental investigation of additional seepage resistance caused by the imperfectness of wells with respect to the degree of the penetration of strata in case of a straight chain of nonartesian wells. Izv.VNIIG 62:171-177 '59. (MIRA 13:6)
(Wells)

PAVLOVSKAYA, L. S. Cand Med Sci -- (diss) "Antibiotic treatment of [redacted] inflammations of the gall bladder and bile-secreting tracts." Mos, 1958. 15 pp (Min of Health USSR. Central Inst for the Advanced Training of Physicians), 200 copies (KL, 5 2-58, 107)

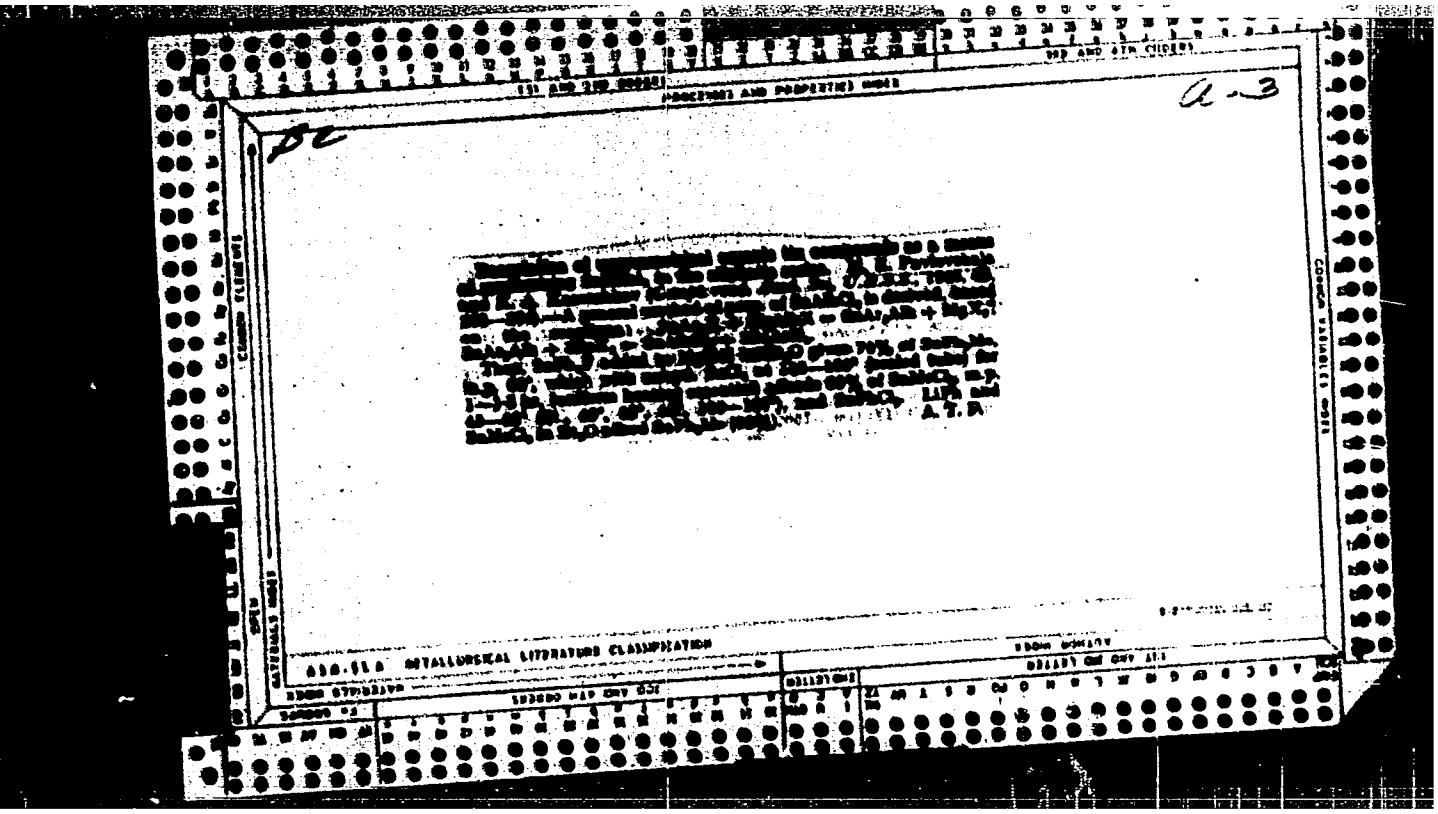
PAVLOVSKAYA, L.S. (Kostroma)

Biomycin therapy of inflammatory diseases of the biliary tract.
Klin.med. 36 no.11:133-135 N '58 (MIRA 11:12)

1. Iz terapevticheskogo otdeleniya (zav. - L.S. Pavlovskaya) Kostromskoy oblastnoy bol'nitsy (nauchnyy rukovoditel'-deystvitel'nyy chlen AMN SSSR prof. M.S. Vovsi).
(CHLANGITIS, therapy
chlortetracycline (Rus))
(CHLORTETRACYCLINE, ther. use.
cholangitis (Rus))

DERBAREMDIKER, P.Z.; VODYANYUK, S.O.; PAVLOVSKAYA, L.V. [illegible]

Use of oleinless emulsions for the oiling of wool fibers in the manufacture of blankets. Leh. prom. no.4:37-41 (MIRA 19:1)



L 1576-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5022604 UR/0190/65/007/009/1580/1584
541.64+678.664

AUTHORS: Nemirovskiy, V. D.; Pavlovskaya, M. A.; Stepanov, V. V.; Skorokhodov, S. S.

TITLE: Synthesis of poly-β-hydroxyvinyl-N-alkyl-and poly-β-hydroxyvinyl-N, N-dialkylcarbamates

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 9, 1965, 1580-1584

TOPIC TAGS: polymer, synthesis, carbamate, polyvinylene carbonate, alkyl radical, dimethyl formamide, infrared spectra

ABSTRACT: Poly-β-hydroxyvinyl-N-alkylcarbamates, in which the alkyl radical is CH_3, C_2H_5, n-C_4H_9, n-C_6H_{13}, n-$C_{10}H_{21}$, cyclohexyl and β-hydroxyethyl, and poly-β-hydroxyvinyl-N,N-dimethylcarbamate were synthesized by aminolysis of high molecular polyvinylene carbonate in dimethylformamide or dimethylsulfoxide solution. The structure of the polymers was determined by the comparison of their infrared spectra with the spectra of the corresponding model of β-hydroxyethyl-N-alkylcarbamates. The conditions of synthesis and the infrared spectral data are tabulated. The conversion of polyvinylene carbonate to poly-β-hydroxyvinyl-

Card 1/3

L 1576-66

ACCESSION NR: AP5022604

21

N-alkyl carbamates (N-alkylcarbamic esters of polyvinylene glycol) was verified by the elementary analysis of the latter and from their properties (especially solubility). The solubility depends on the substituent at the carbamate atom of nitrogen and on the degree of substitution. A large number of hydroxyl groups results in a higher solubility in lower alcohols, acetic acid, and sometimes in water. Solubility decreases with increasing radical length (except for poly-β-hydroxyvinyl-N-alkyl carbamates with N-methyl and N-ethyl groups). The experimental data show that the aminolysis of polyvinylene carbonate does not cause appreciable degradation. The thermomechanical and physicomechanical properties of the resulting polymers (glass temperature, film strength, sedimentation, solubility, viscosity of solutions) were investigated. X-ray analysis showed that the solutions are film-forming. Films from N-butyl carbamates (methanol solution) have a glass temperature of 163C, tensile strength of 800 kg/cm^2 (in a partially oriented state 1600 kg/cm^2). From a 15% methanol solution this polymer gives a fiber with an approximately 10-km breaking length. The authors express their gratitude to Ye. I. Pokrovskiy, K. K. Kalmin'sh, Ye. F. Fedorova, G. V. Lyublinova, M. I. Bessonov, and L. Layus for carrying out the thermomechanical investigations, and to S. I. Klenin for the ultracentrifugal experiments. Orig. art. has: 1 figure and 1 table.

Card 2/3

L 1576-66

ACCESSION NR: AP5022604

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy, AN SSSR (Institute of High-Molecular Compounds, AN SSSR)

SUBMITTED: 17Oct64 ENCL: 00 SUB CODE: GC, OC

NO REF SOV: 002 OTHER: 006

Card 3/3

ZAGORODSKAYA, M.M.; PAVLOVSKAYA, M.A.

Clinical radiographic characteristics of inflammatory suppurative processes in cystic lung. Vrach. delo no.6:148-149 Je '61. (MIRA 15:1)

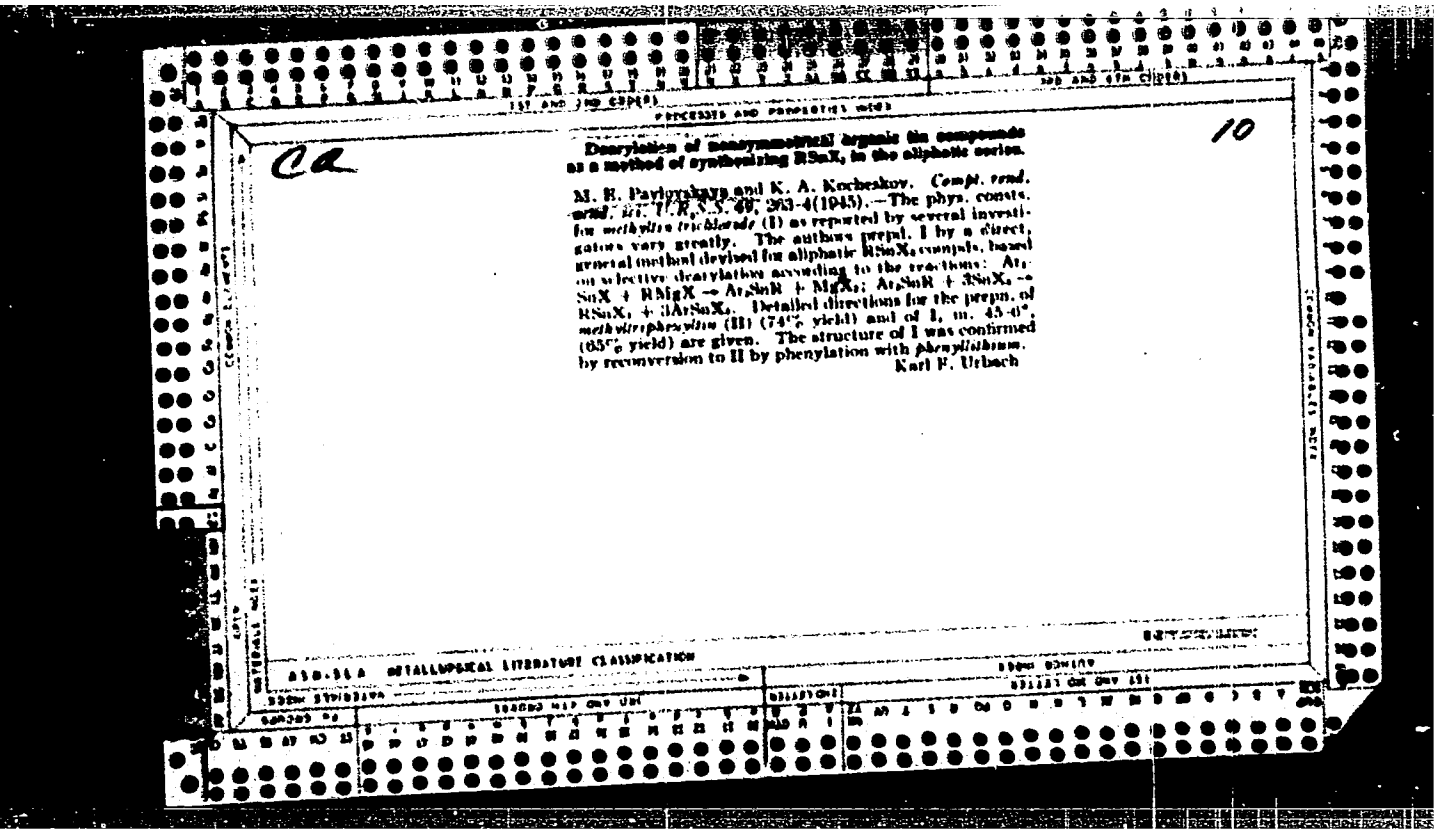
1. Kafedra rentgenologii (zaveduyushchiy - prof. A.Ye.Rubasheva) Kiyevskogo instituta usovershenstvovaniya vrachey.
(RADIOGRAPHY) (LUNGS--DISEASES)

AKHMEDBABAYEV, M.Kh.; ARIFDZHANOV, K.A.; BELOUSOV, N.A.; BELYAKOV, S.P.; ZOTOV, V.G.; ISAYEVA, Z.D.; MAKHMUDOV, I.A.; ISHCHENKO, F.S.; KRASIL'NIKOV, Ya.A.; NIKOL'SKIY, I.P.; NETSETSKIY, A.M.; PERGAT, F.P.; PAVLOVSKAYA, M.D.; SAMSONOV, L.S.; POLIZHAYEV, A.I.; SMIRNOV, F.Ye.; SABININ, M.N.; SHUTYAYEV, N.A.; CHIZHIK, V.I.; KARPENKO, P.M.; IMEROV, A.I.

Mikhail Aleksandrovich Nenetskii; obituary. Veterinariia 37 no.10:94 O '60. (MIRA 15:4)
(Nenetskii, Mikhail Aleksandrovich, 1899-1960)

PAVLOVSKAYA, M. E.

"Dearylation of Non-Symmetrical Organic Tin Compounds as a Method of Synthesizing $RSnX_3$ in the Aliphatic Series," Dok. AN, 49, No. 4, 1945. -c1945-.



Ca

10

Dearylation of nonsymmetrical organic tin compounds as a method of synthesizing RSnX, in the aliphatic series.

M. E. Paviyskaya and K. A. Kocheshkov. *Compt. rend. acad. sci. U.R.S.S.* 49, 263-4(1945).—The phys. consts. for *methyltin trichloride* (I) as reported by several investigators vary greatly. The authors prepd. I by a direct, general method devised for aliphatic $RSnX_3$ compds. based on selective dearylation according to the reactions: $Ar_3SnX + RMgX \rightarrow Ar_3SnR + MgX_2$; $Ar_3SnR + 3SnX_4 \rightarrow RSnX_3 + 3ArSnX_3$. Detailed directions for the prepn. of *methyltriphenyltin* (II) (74% yield) and of I, m. 45-6°, (85% yield) are given. The structure of I was confirmed by reconversion to II by phenylation with *phenyllithium*.

Karl F. Urbach

PAVLOVSKAYA, M.I., otv. za vyp.; SERGEYEVA, A.I., red.izd-va; VASIL'YEVA, N.N., tekhn. red.

[Standard production norms for track repair on heaves based on technical specifications] Tipovye tekhnicheski obosnovannye normy vyrabotki po ispravleniiu zheleznodorozhnogo puti na puchinakh. Moskva, Transzheldorizdat, 1963. 22 p. (MIRA 16:10)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye puti i sooruzheniy.
(Railroads--Maintenance and repair)

PAVLOVSKAYA, M.I., otv. za vypusk; SERGEYEVA, A.I., red. izd-va; VOROTNIKOVA, L.F., tekhn. red.

[Instructions for railroad traffic safety during track work (TsP/2021)]Instruktsiia po obespecheniiu bezopasnosti dvizheniia poezdov pri proizvodstve putevykh rabot; v otmenu... izdaniia 1952 g.(TsP/2021). Moskva, Transzheldorizdat, 1962. 170 p. (MIRA 15:7)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye puti i sooobshcheniy.
(Railroads—Traffic—Safety measures)

PAVLOVSKAYA, M.P., kand.khim.nauk; REYHEL', I.M., kand.khim.nauk

Determination of the composition of a complex compound of uranyl with oxine (in 2,5 M CH_3COOH) in the presence of isoamyl alcohol. Trudy Kish.sel'khoz.inst. 26:65-71 '62. (MIRA 16:5)
(Uranyl compounds) (Quinolinol)

PAVLOVSKAYA, M.P., kand.khim.nauk; REYBEL', I.M., kand.khim.nauk

Optical and potentiometric methods for determining the composition of the complex ion formed by uranyl and orthohydroxyquinoline. Trudy Kish.sel'khoz.inst. 26:53-63 '62. (MIRA 16:5)
(Uranyl compounds) (Quinolinol)

PAVLOVSKAYA, M.P., kand.khim.nauk; REYBEL', I.M., kand.khim.nauk

Potentiometric titration used for determining the composition of a complex compound formed by the uranyl ion and sulfosalycilic acid. Trudy Kish.sel'khoz.inst. 26:73-79 '62. (MIRA 16:5)
(Uranyl compounds) (Salicylic acid) (Potentiometric analysis)

PAVLOVSKAYA, M.P., kand.khim.nauk; REYBEL', I.M., kand.khim.nauk;
AYZENBERG, L.N., kand.khim.nauk; AYZENBERG, R.S., kand.khim.nauk

Composition of a complex compound of aluminum and juglone in solution. Trudy Kish.sel'khoz.inst. 26:149-157 '62. (MIRA 16:5)
(Aluminum organic compounds) (Juglone)

PAVLOVSKAYA, M. P.

Defended his Dissertation for Candidate of Chemical Sciences in the Saratov State University, Saratov, 1953

Dissertation: "Research in the Field of Mercurometry"

SO: Referativnyy Zhurnal Khimiya, No. 1, Oct. 1953 (W/29955, 26 Apr 54)

5.5220
5.5130
5(2)

68231

S/078/60/005/02/024/045
B004/B016

AUTHORS: Pavlovskaya, M. P., Reybel', I. M.

TITLE: Complex Formation of the Uranyl Ion With 8-Hydroxyquinoline

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 2, pp 393-395 (USSR)

ABSTRACT: The reaction mentioned in the title was investigated in the presence of an excess of pyridine. The optical densities of isomolar solutions of uranyl acetate and 8-hydroxyquinoline were determined by the FM type photometer at 20°, and the pH was measured by means of the LP-5 type potentiometer (Figure). The maximum optical density occurs at a ratio of uranyl ion : hydroxyquinoline = 1 : 1 and at pH = 7.00. The composition of the complex compound was determined by potentiometric titration (Table). It corresponds to a ratio of UO_2^{2+}: 8-hydroxyquinoline = = 1 : 1. The authors describe the application of the color reaction of the uranyl ion with 8-hydroxyquinoline as drop reaction for the qualitative determination of the uranyl ion. At a maximum dilution of 1 : 11267 in 2 ml solution, still 177.5 γ uranium can be determined even in the presence of other ions. The authors refer to papers by V. D. Vasilenko, B. E.

Card 1/2

SHPEYYER, L.F.; PAVLOVSKAYA, M.Ye.

Synthesis of nitrogen derivatives of phenocyacetic acid. Report No.1: Azophenoxyacetic acids. Ukr. khim. zhur. 30 no.1:63-65 '64. (MIRA 17:6)

1. Khar'kovskiy sel'skokhozyaystvennyy institut imeni V.V. Dokuchayeva.

RAGIMOV, Sh.S.; PAVLOVSKAYA, N.A.

Determining the direction towards an epicenter from Rayleigh and Love waves. Dokl. AN Azerb. SSR 19 no.1:31-33 '63. (MIRA 16:4)

1. Institut geologii AN AsSSR. Predstavleno akademikom AN AzSSR A.D.Sultanovym.

(Elastic waves)

5.4110

S/076/60/034/05/27/038
B010/B003

AUTHORS: Sof'ina, V. V., Pavlovskaya, N. G.

TITLE: Equilibrium State of the Ti - H and Zr - H Systems at Low Pressures

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 5, pp. 1104-1109

TEXT: When accelerating substances with metal targets saturated with hydrogen isotopes are used, it is necessary to know the permissible temperature that does not reduce the efficiency of the targets. Since the existence of a "metal - hydrogen" equilibrium has hitherto not been investigated at pressures of less than 10^{-3} torr, the systems Ti-H and Zr-H were examined at pressures of 10^{-3} to 10^{-7} torr in the article under review. The metals were saturated with hydrogen by a method described in Ref. 6 until they had almost attained the composition of MH_2. The hydrogen concentration (Table) and the dependence of equilibrium pressures on temperature, respectively, were determined in metal hydrides

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Equilibrium State of the Ti - H and Zr - H Systems at Low Pressures

S/076/60/034/05/27/038
B010/B003

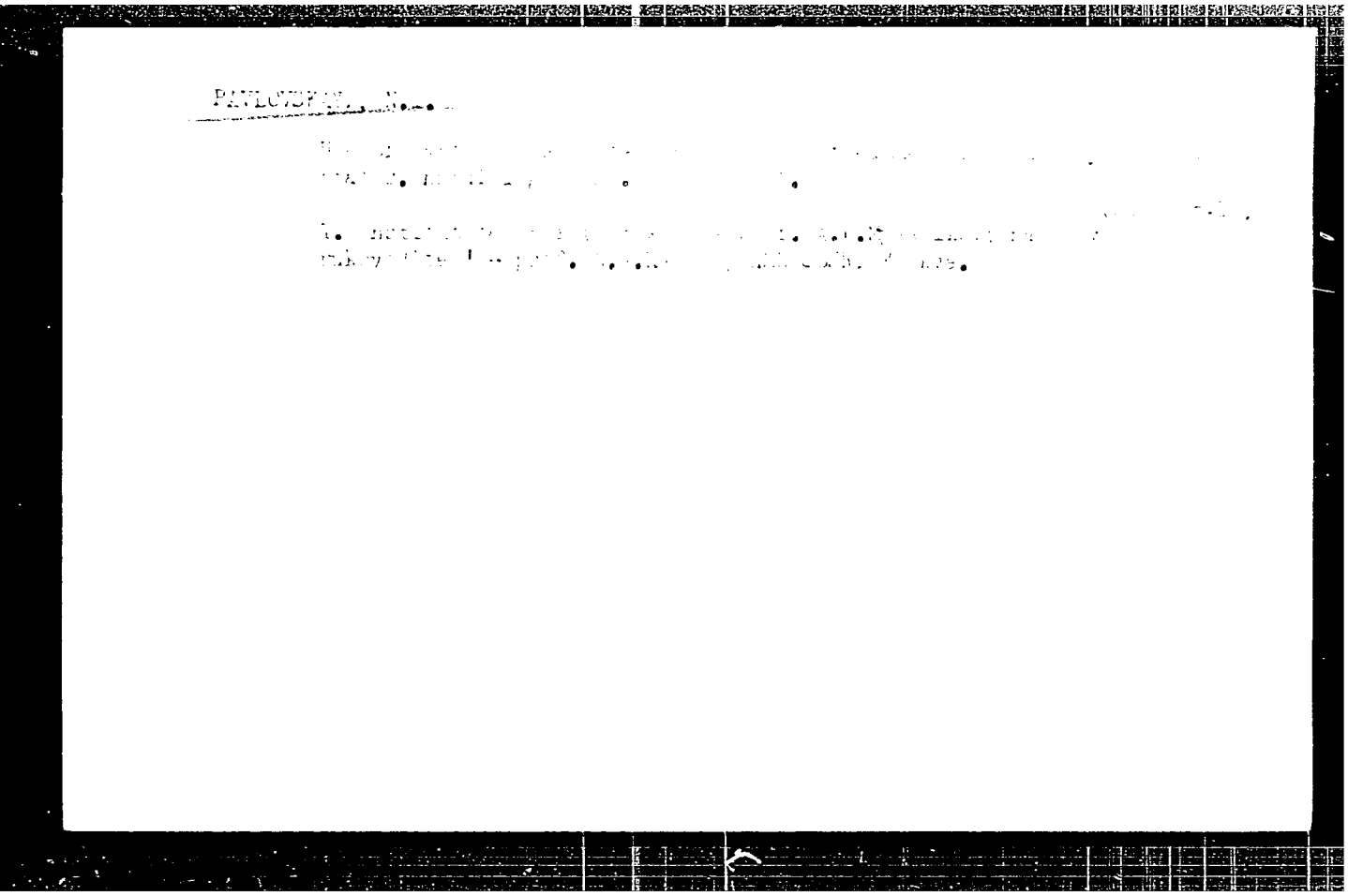
by means of a pressure gauge with an ЛМ-2 (LM-2) ionization tube and an ЛТ-2 (LT-2) thermocouple pressure gauge. From these dependence curves the isobaric and isothermal lines (Figs. 2-5) were drawn. The experiments showed that there is an equilibrium state in the systems investigated at pressures of 10^{-3} to 10^{-7} torr. The system Zr-H is thermally more stable at low pressures with respect to hydrogen separation than the system Ti-H. The reaction heat of the hydride formation of Ti and Zr is not constant, and its temperature- and pressure dependences vary with the hydrogen content of the metal. The heat of formation of titanium hydride increases from 19 to 44 kcal/Mol and that of the zirconium hydride from 29 to 42 kcal/Mol. The authors assume that three different processes take place: 1) Dissolution of hydrogen in the α-phase of the metal, 2) transition of the α-phase into the β-phase (hydride formation), and 3) dissolution of hydrogen in the β-phase. In conclusion, the authors thank V. A. Tsukerman, Doctor of Technical Sciences, Ya. B. Zel'dovich, Corresponding Member of the AS USSR, and V. A. Davidenko, Doctor of Physical and Mathematical Sciences, for their valuable advice. There are 8 figures, 1 table, and 7 references: 3 Soviet, 2 American, and 2 English.

Card 2/3

PAVLOVSKAYA N.I. (Moskva)

Treatment of chronic myeloleukosis with myelosan. Klin.med. 36 no.7:82-88 Jl '58 (MIRA 11:11)

1. Iz TSentral'noy klinicheskoy bol'nitsy imeni Semashko Ministerstva putey soobshcheniya (nach. bol'nitsy V.P. Akopov, nauchnyy rukovoditel' terapevticheskoy kliniki - zaslyzhennyy deyatel' nauki chlen-korrespondent AMN SSSR prof. I.A. Kassirskiy).
(LEUKEMIA, MYELOCYTIC, ther.
busulfan in chronic dis. (Rus))
(BUSULFAN, ther. use
chronic myelocytic leukemia (Rus))



S/081/60/000/010/004/009
A166/A129

AUTHORS: Pavlovskaya, N.N.; Shultin, A.I.

TITLE: The electrochemical behavior of nickel in sulfuric acid and ferric sulfate solutions

PERIODICAL: Referativnyy zhurnal. Khimiya, 1960, no. 10, 76, abstract 38104. (Uch. zap. Leningr. gos. ped. in-ta im. A.I. Gertsena, 1959, v. 160, no. 1, 207 - 219)

TEXT: Anode polarization curves were plotted for Ni in H_2SO_4 [1; 2 N.] and 2 N. H_2SO_4 + $Fe_2(SO_4)_3$ [1; 2 and 4.4 N.] solutions in a range from +0.250 to +2.055 v (n.v.e.). The anode polarization curves consist of two sections divided by the passive state area (~ 1.5 v). In solutions of varied composition the curves coincided well with each other. Comparison of the anode current density (i_a) with the weight losses of the electrode in 1 N. H_2SO_4 showed that in the first section of the anode polarization curve the current is consumed entirely in dissolving Ni. When i_a = 65 - 70 ma/cm^2 in 1 N. H_2SO_4, Ni passivation occurs; in the presence of $Fe_2(SO_4)_3$ this effect is observed at lower i_a values. The second section of the curve corresponds to liberation of O_2. When the anode polariza-

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VINOGRADOV, G.V.; LYAN GO-LIN' [Liang Kuo-lin]; PAVLOVSKAYA, N.T.

Effect of pro- and antioxidants on the lubricating action of mineral oils. Neftekhimia 1 no.3:427-432 My-Je '61. (MIRA 16:11)

1. Institut neftekhimicheskogo sinteza.

VINOGRADOV, G.V.; LYAN GO-LIN' [Liang Kuo-lin]; PAVLOVSKAYA, N.T.

Wear preventing and antifriction properties of lubricating oils under heavy friction conditions. Tren.i izn.mash. no.15:432-477 '62. (MIRA 15:4)

(Lubrication and lubricants—Testing)

VINOGRADOV, G.V.; LYAN GO-LIN' [Liang Kuo-lin]; PAVLOVSKAYA, N.T.

Higher aliphatic acids as additives to mineral oils for use in connection with high friction of metals; use of stearic acid. Neftekhimiia 1 no.2:280-285 Mr-Ap '61. (MIRA 15:2)

1. Institut neftekhimicheskogo sinteza AN SSSR.
(Lubrication and lubricants--Additives)
(Stearic acid)

VINOGRADOV, G.V.; LYAN GO-LIN' [Liang Kuo-lin]; PAVLOVSKAYA, N.T.

Oxidants as a basis for the lubricating action of mineral oils.
Neftekhimiia 1 no.2:274-279 Mr-Ap '61. (MIRA 15:2)

1. Institut neftekhimicheskogo sinteza AN SSSR.
(Mineral oils)
(Lubrication and lubricants)

PAVLOVSKAYA N. T.

Composition and Properties of the High Molecular (Cont.) 647
Weight Fraction of Petroleum; Collection of Papers, Moscow, Izd-vo AN SSSR, 1958, 370pp

troleum products were tested (e.g. kerosene fractions). The performance of lube oils was examined at high surface friction and with various additives (sulfur, phosphorus, chlorine). Oils used were: transformer oils, SU, AK-15. A close study of the NPF (naphthene-paraffin fraction) was made, and their characteristics were determined as modifying the properties of the oils. The NPF from various crudes are different and their sensitivity to additives vary (especially towards organophosphoric wear-resistance additives). There are 2 tables, 2 figures, and 2 Soviet references.

Pavlovskaya, N.T., Vinogradov, G.V., Bezborod'ko, M.D. Wear-Resistance Properties and Oxidizability of the Naphthene-Paraffin Fractions of Viscous and Low-Viscosity Petroleum Oils 198

Since friction tests show the importance of oil composition, in particular of the NPF, a through study was made of this fraction. The NPF of transformer oil and of MS-20 were used in these tests. Results show that it is possible to achieve an exact differentiation of the various naphthene-paraffin fractions obtained from petroleum oils with different viscosity indexes. It was shown that the NPF of low-viscosity oils have a lower oxidation stability. There are 5 figures and 3 Soviet references.

Card 12/22 *2nd Collection of Papers publ. by AU Conf, Jan 56, Moscow.

PAVLOVSKAYA, N. T., VINOGRADOV, G. V., SEMECHKIN, L. Ya.

"Changes in the Composition of Motor Oils During Service" p. 185

Composition and Properties of the High Molecular Weight Fraction of Petroleum; Collection of Papers, Moscow, Izd-vo AN SSSR, 1955 370pp. (Khim neft') 2nd Collection of papers publ. by AU Conference, Jan 56, Moscow

In order to study the effect of working conditions on lubricating oils, two oils were chosen: MS-14 (GOST 1013-49) obtained from Emba crudes, and motor oil SU (GOST 1707-51) obtained from Balakhany crudes. These oils were tested on several engines. Characteristics of initial and spent samples are given. The test s on piston engines showed that a period of 60 hours of service does not lead to a change of the chemical group-composition of oils. Longer periods (1[illegible] hours) are needed to cause noticeable changes. There are two tables and 4 references of which 3 are Soviet and 1 English.

TSURKAN, I.G.; VINOGRADOV, G.V.; PAVLOVSKAYA, N.T.; MOROZOVA, O.Ye.

Wear-preventive properties of oils from eastern crudes. Khim. i tekh.topl. i masel. 3 no.8:29-34 Ag '58. (MIRA 11:9)

1.Institut nefti AN SSSR.
(Lubrication and lubricants)

AUTHORS: Pavlovskaya, N. T., Kos'kun, G. I. Bezborod'ko, M. D. SOV/32-24-7-27/65

TITLE: A Method of the Preparation of Microsections for the Metallographic Analysis of the Places of Wear (Metodika izgotovleniya shlifa dlya metallograficheskogo analiza pyatna iznosa)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 7, pp. 840 - 841 (USSR)

ABSTRACT: This investigation was conducted according to suggestions by Professor Vinogradov and Professor B.I.Kostetskiy. A new method was used, which consisted of investigating the lubricating power of oils in machines with four balls. Polished sections showing the cross-section of the place of wear were prepared. A special steel binding, which is given in a figure, was used. The final polishing of the microsection after the stress test is made in the presence of chromium oxide and aluminium oxide. The etching is carried out with a 4% nitric acid solution in alcohol. It appears from the micrographs of some sections that the metal surface of ShKh6 steel changes considerably at 200° and certain

Card 1/2

A Method of the Preparation of Microsections for the Metallographic Analysis of the Places of Wear SOV/32-24-7-27/65

friction and load conditions, this change being dependent upon the gas and oil medium. Data are given for an argon and an oxygen atmosphere with transformer oil. There are 2 figures.

ASSOCIATION: Institut nefti Akademii nauk SSSR (Petroleum Institute, AS USSR)

Card 2/2

BEZBORODʹKO, M.D.; VINOGRADOV, G.V.; PAVLOVSKAYA, N.T.; TSURKAN, I.G. (Moskva)

Wear-resistant properties of lubricants and the effect of various factors on wear-resistant properties of crude oils. Izv.AN SSSR. Otd.tekh.nauk no.12:104-114 D '58. (MIRA 11:12)
(Lubrication and lubricants--Testing)
(Petroleum--Testing)

SOV/32-24-10-40/70

AUTHORS: Bezborod'ko, M. D., Pavlovskaya, N. T., Vinogradov, G. V.

TITLE: A Friction Machine for Testing the Lubrication Properties of Petroleum Products (Mashina treniya dlya ispytaniya smazochnoy sposobnosti nefteproduktov)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 10, pp 1267-1269 (USSR)

ABSTRACT: The machine described in the present paper was devised by V. D. Zelenskiy; later on the authors of this paper completed the work on it. From the schematic representation it may be seen that the machine consists of the friction unit, the loading device, the drive, and the automatic recording instrument. With a shaft revolution of 600 revs/min. an illumination by two neon lamps SN-1, and at higher speeds one by a high-voltage neon lamp takes place. The maximum relative error in the determination of the revolution speed is ± 1%. From a diagram of the friction unit and its description it may be seen that a heating up to 95° can take place by means of a thermostat TS-24. A heating to 300° can be achieved by an electric heater, with a pyrometric millivoltmeter of the type MRSh-54, and a transformer of the type LATR-9 being used. The friction unit is

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SOV/32-24-10-40/70

A Friction Machine for Testing the Lubrication Properties of Petroleum Products

loaded by a hydraulic arrangement containing a manometer of the type MP -1. The spindle oil AU is used. The measurement of the places of wear is carried out by means of a microscope MP -5. The reproducibility of the experimental results was investigated with a petroleum paraffin fraction of the oil MS-20 according to the one-minute method (Ref 3) at n=600 revs/min. There are 3 figures and 3 references, which are Soviet.

ASSOCIATION: Institut nefti Akademii nauk SSSR (Petroleum Institute AS USSR)

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39833

S/081/62/000/011/040/057
E202/E192

11970C

AUTHORS: Vinogradov, G.V., Liang Kuo-lin, and Pavlovskaya, N.T.

TITLE: The influence of pro- and anti-oxidants on the lubricating action of petroleum oils

PERIODICAL: Referativnyy zhurnal, Khimiya, no.11, 1962, 520, abstract 11 M 216. (Neftekhimiya, v.1, no.3, 1961, 427-432).

TEXT: A 4-ball friction machine was employed using an earlier procedure (see R.Zh.Khim., 3, 1962, M218) to test paraffin fractions of petroleum oils (NF) which did not contain additives, and those containing 0.5% of benzyl peroxide (I) and 0.5% I + 2,6-tert-butyl-4-methylphenol (II; II as an anti-oxidant). The tests were carried out: 1) in vacuum at approximately 10^{-5} mm Hg (with NF distilled in vacuum and kept without contact with air); 2) by blowing O_2 through NF . The coefficient of friction was determined in relation to load and the seizure load (NZ). Introduction of I into NF caused considerable increase of NZ in the tests carried out in vacuum, in tests with the passage of argon, and in tests in air. In tests with the passage

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of O_2, introduction of I increased the coefficient of friction for loads lower than NZ and lowered considerably NZ; the seizure was, however, stopping rapidly during further increase of loads. Introduction of II (up to 10% concentration) into NF during the vacuum tests did not affect the results, and in tests in air and with the passage of oxygen (where a certain amount of seizure at increased loads was observed) did not influence the load causing initial seizures, but lowered the loads of the subsequent intensive seizures and the welding loads. It was concluded that II as an anti-oxidant retards the oxidation of the oil by preventing the accumulation in it of the active oxidants and thereby makes easier the appearance of intensive seizures.

[Abstractor's note: Complete translation.]

31976
S/081/61/000/023/049/061
B107/B110

11.9000 also 1583

AUTHORS: Bezborod'ko, M. D., Pavlovskaya, N. T., Arkharova, V. V.

TITLE: Effect of composition and nature of gaseous media on the antifrictional properties of mineral lubricating oils

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1961, 453, abstract 23M115 (Tr. 3-y Vses. konferentsii po treniyu i iznosu v mashinakh. M., AN SSSR, v. 3, 1960, 177-186)

TEXT: A four-ball machine with a special friction joint permitting the introduction of gases was used for the investigation. The effect of gaseous media (air, argon, nitrogen, oxygen) on the antifrictional properties of the following lubricants was studied; naphthene - paraffin and aromatic fractions of oils and oil extracts boiling in a narrow range which were produced in the Groznenskiy zavod (Grozny works), Bakinskiy zavod (Baku works), and Novo-Kuybyshevskiy zavod (Novo-Kuybyshev works). Various metals, ШХ6 (ShKh6) and ЭИ229 (EI229) steels and БрБ2 (BrB2) beryllium bronze were tested at high specific pressures and temperatures. It has been found that the nature of the gaseous media has an effect upon

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SOV/24-58-12-17/27

AUTHORS: Bezborod'ko, M.D., Vinogradov, G.V., Pavlovskaya, N.T. and Tsurkan, I.G. (Moscow)

TITLE: Anti-Wear Properties of Lubricants and the Influence of Various Factors on the Anti-Wear Properties of Petroleum Oils (O protivoiznosnykh svoystvakh smazochnykh materialov i o vliyanii razlichnykh faktorov na protivoiznosnyye svoystva neftyanykh masel)

PERIODICAL: Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr, pp 104-114 (USSR)

ABSTRACT: The authors discuss the required properties of lubricants. They note that mercury and some liquid alloys could satisfy the requirements of a lubricant for many metals and go on to describe their experimental work with these materials. The four-ball testing machine described in the literature (Ref.2) was used. Experiments were made in air with 1/2" spheres of ball-bearing chromium steel and of beryllium bronze, the lubricants being mercury and Wood's alloy. Fig.1 shows wear at 20°C and speeds of 21 and 57 cm/sec for steel/steel and bronze/bronze as functions of load and Fig.2 shows the curves for liquid Wood's alloy at 80, 90 and 200°C. Analgams of Wood's

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Anti-Wear Properties of Lubricants and the Influence of Various Factors on the Anti-Wear Properties of Petroleum Oils

alloy with 40% mercury, especially if containing 2% MoS_2 proved very effective lubricants at very heavy loads. The friction versus time curves for mercury and Wood's alloy lubrication of steel (Fig.3) and beryllium-bronze (Fig.4) spheres show that a considerable time is required for a steady state to be reached: the authors associate this with the removal of surface oxide films. They go on to deal with lubrication by petroleum oils. In their experiments the non-polar naphthenic-paraffin fractions of a bright stock of mixed Surakhansk and Karachukhursk oils and of transformer oil were used. The kinetics of steel wear were studied at 50 and 150°C and sliding rates of 23 and 46 cm/sec and the effects of loading (Fig.5), one series (curve 6) being carried out above the critical load value. In view of the results obtained single-minute tests were adopted. These included tests in which various atmospheres (air, nitrogen, oxygen, argon and superheated steam) were provided and Fig.6 shows typical results for steel

Anti-Wear Properties of Lubricants and the Influence of Various Factors on the Anti-Wear Properties of Petroleum Oils

obtained at 50°C and a speed of 23 cm/sec with the bright-stock material. The curves show that the atmosphere greatly affects both the dry friction and the anti-wear properties of the lubricant. At 200°C results obtained with oxygen were almost the same as those in fused eutectic mixtures of $NaNO_3$, KNO_3 and $NaNO_2$. Similar results were obtained with transformer oil. When spheres of 18% Cr semi-ferritic stainless steel were used the nature of the atmosphere affected the wear curves differently. A selection of curves for spheres of this material and other spheres, various lubricants and test conditions is given in Fig.7. With spheres merely coated with oil, both oil oxidation and surface hardening of steel were more intense than when oil was present in bulk. To find the influence of the scale factor tests were carried out with standard ball-bearing spheres from 5.95 to 19.05 mm in diameter, at speeds of 5-86 cm/sec and with the bulk of the oil at room temperature. The authors discuss the temperature and friction effects and show that there should be a

Anti-Wear Properties of Lubricants and the Influence of Various Factors on the Anti-Wear Properties of Petroleum Oils

critical temperature corresponding to the critical load. They deduce dimensionless equations and give results of experiments in which the information on the movement of the oil (required for applying the equations) was obtained by following the movement of ochre particles in the oil during a test. For treating the data the authors used an experimental relation between the friction coefficient and speed of sliding for sub-critical loads (Fig.8) and they show calculated and experimental values for the influence of the scaling factor, speed of sliding and friction coefficient on the critical loads (Fig.9 and table), the relations obtained being similar to those for gears (Ref.6). Fig.10 shows the results of the investigation of the temperature dependence of the critical load for various oils with 1/2" chromium ball-bearing steel balls. Metallographic study of sections cut slantwise through worn spots on the steel balls in the direction of sliding confirmed the expectation that at temperatures

Anti-Wear Properties of Lubricants and the Influence of Various Factors on the Anti-Wear Properties of Petroleum Oils

of the order of 200°C the nature of the atmosphere was the main factor. The authors maintain that in evaluating the lubricating properties of oils the nature of the wear process must be taken into account and briefly discuss this. There are 10 figures, 1 table and 8 references of which 7 are Soviet and 1 English.

SUBMITTED: 7th December 1957.

Card 5/5

VINOGRADOV, G. V.; KOREPOVA, I. V.; PODOLSKIY, Yu. Ya.; PAVLOVSKAYA, N. T.

"Effect of oxidation on boundary friction of steel in hydrocarbon medial and critical friction duties under which cold and hot seizure (or welding) develop."

report presented at the Intl Lubrication Conf, Washington, D.C., 13-16 Oct 64.

Inst of Petrochemical Synthesis, AS USSR, Moscow.

BEZBORODʹKO, M.D.; PAVLOVSKAYA, E.T.; VINOGRADOV, G.V.

Friction machine for testing the lubricating capacity of petroleum products. Zav.lab. 24 no.10:1267-1269 '58. (MIRA 11:11)

1. Institut nefti AN SSSR.
(Testing machines) (Lubrication and lubricants)

PAVLOVSKAYA, N. T.

Change of the chemical composition of motor oil during use. D. V. Vinogradov, L. Ya. Semechkin, and N. T. Pavlovskaya. Zhur. Priklad. Khim. 30, 657-60(1957). Oils in reciprocal engines for a period of 60 hrs. did not change their chem. group compn. I. Bencowitz

PAVLOVSKAYA, N. N.

PAVLOVSKAYA, N. N. --"On the Kinetics of the Dissolving of Nickel in Solution of Certain Electrolytes." * (Dissertations For Degrees In Science and Engineering Defended at USSR Higher Educational Institutions.) (34). Leningrad State Pedagogical Inst imeni A. I. Gertsen, Chair of Inorganic Chemistry, Leningrad, 1955

SO: Knizhnaya Letopsi', N. 34, 20 August 1955

* For the Degree of Candidate in Chemical Sciences

SOV/65-58-8-6/14

AUTHORS: Tsurkan, I. G; Vinogradov, G. V; Pavlovskaya, N. T; and Morozova, O. Ye.

TITLE: Anti-Wear Properties of Oils from Eastern Petroleum. (Protivoiznosnyye svoystva masel iz vostochnykh neftey).

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.8. pp. 29 - 34. (USSR).

ABSTRACT: During investigations on the useful characteristics of oils from Eastern petroleums, it was found that the anti-wear (lubricating properties) had not been studied sufficiently. Surface - and chemically active metals influence those properties to a very large degree. Investigations were based on results obtained by M. S. Borovaya on diesel oil fractions from Tuymazy, Binagadi, and Baku. These oils have similar viscosities, but different chemical composition (Table 1). Further tests were carried out on oils and intermediates obtained from the Novokuybyshevsk Petroleum Refinery. Characteristics of these products and their viscosities and sulphur-content are given in Table 2. Solutions containing sulphides and disulphides in the oils were tested. Fig.1: friction diagrams obtained from naphthenic-paraffinic fractions of the oil SU. These tests showed that the viscosity of the petroleum products from the Novokuy-

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Anti-Wear Properties of Oils From Eastern Petroleum.

byshevsk Petroleum Refinery only changed slightly during processing. Table 3: various methods used for evaluating the properties are compared. Fig.4: test results on the lubricating properties of structural-group composition of three diesel oils. These investigations showed that the medium viscosity products of Eastern petroleums have the highest effect. Fractions separated with the aid of isooctane show average properties. For all these aromatic products an almost horizontal line on the wear curves in the region of 60 - 70 to 90 kg loads is typical. The medium fraction, separated with isooctane, shows an optimum combination of chemically active sulphur compounds and viscosity. This investigation has made it possible to present a new method of evaluating the lubricating properties of the oils, to ascertain that during the processing of semi-goudron the lubricating property of the oily petroleum products decreases, and to find a limit in the lubricating properties of the

SOV/65-58-8-6/14

Anti-Wear Properties of Oils From Eastern Petroleum.

structural components of oils which may or may not contain sulphur compounds. There are 4 Figures, 2 Tables and 4 Soviet References.

ASSOCIATION: Institut nefti AN SSSR. (Petroleum Institute, AS USSR).

1. Oils--Test results

Card 3/3

PAVLOVSKAYA, N.T.; KOS'KUN, G.I.; BEZBORODKO, M.D.

Method of preparation of a polished section for the metallographic analysis of a worn spot. Zav. lab. 24 no. 7:840-841 '58. (MIRA 11:7)

1. Institut nefti AN SSSR.
(Bearing metals--Metallography)

PAVLOVSKAYA, N. T.

4

4E3d

162. Measurement of the composition of engine oils during use. G. V. Vinogradov, L. Ya. Smerch-kin and N. T. Pavlovskaya. Zhur. Prikl. Khim., 1957, 30 (4), 637-600.—The oil dissolved in iso-octane is passed through a column of silica gel (250 cm high × 2·5 cm in diam.), which is then washed with isooctane until the pure solvent is coming through. The column is then washed with benzene until the pure solvent appears, then with

VINOGRADOV, G.V.; KUSAKOV, M.M.; BEZBORODKO, M.D.; PAVLOVSKAYA, N.T.; ZELENSKIY, V.D.; KREYN, S.E.; BOROVAYA, M.S.

Wear-preventive properties of petroleum oils. Khim.i tekh.topl. no.1:61-3 of cover Ja '56. (MLRA 9:7)
(Petroleum)

PAVLOVSKAYA, N.T

SOV/81-59-19-69221

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 19, p 393 (USSR)

AUTHORS: Vinogradov, G.V., Semechkin, L.Ya., Pavlovskaya, N.T.

TITLE: On the Changes in the Composition of Engine Oils in the Process of Their Application

PERIODICAL: V sb.: Sostav i svoystva vysokomolekul. chasti nefti. Moscow, AN SSSR, 1958, pp 185 - 188

ABSTRACT: The changes in the chemical group composition of the MS-14 aircraft oil from the best Emba petroleum and of the SU machine oil from Balakhany oil petroleum were investigated after working without addition in the engines V-2 (MS-14), "Hercules" (MS-14 and SU) and "Mercedes-Benz" (SU) for 50 - 60 hours. The oils were separated on industrial silicagel of type ASK at the ratio of the volumes of silicagel to oil of 5:1 and the dilution of the oil by isooctane in a ratio of 1:6. The naphthene-paraffine fraction and the monocyclic aromatic or naphthene-aromatic hydrocarbons were desorbed by isooctane, the remaining aromatic fraction

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On the Changes in the Composition of Engine Oils in the Process of Their Application

by benzene, and the resinous substances at first by an alcohol-benzene mixture (1:1) and later on by acetone. For the first time it has been established that during operation of engine oils in diesel motors for 50 - 60 hours, their chemical group composition remains practically unchanged.

B. Englin

PAVLOVSKAYA, N. I.

PHASE I BOOK EXPLOITATION SOV/5055

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d, 1958.

Gidrodinamicheskaya teoriya smazki. Opory skol'zheniya. Smazka i smazochnyye materialy (Hydrodynamic Theory of Lubrication. Slip Bearings. Lubrication and Lubricant Materials) Moscow, Izd-vo AN SSSR, 422 p. Errata slip inserted. 3,800 copies printed. (Series: Its: Trudy, v. 3)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Resp. Eds. for the Section "Hydrodynamic Theory of Lubrication and Slip Bearings": Ye. M. Gut'yar, Professor, Doctor of Technical Sciences, and A. K. D'yachkov, Professor, Doctor of Technical Sciences; Resp. Ed. for the Section, "Lubrication and Lubricant Materials": G. V. Vinogradov, Professor, Doctor of Chemical Sciences; Ed. of Publishing House: M. Ya. Klebanov; Tech. Ed.: O. M. Gus'kova.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

COVERAGE: The collection, published by the Institut mashinovedeniya AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1958. Problems discussed were in ...

Hydrodynamic Theory (Cont.) SOV/5055

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PAVLOVSKAYA, R.M.

Survival of anchovy larvae in the northwestern part and other regions of the Black Sea in 1954-1955 as affected by feeding conditions. Dokl. AN SSSR 120 no. 2:415-418 My '58. (MIRA 11:7)

1. Azovsko-chernomorskiy nauchno-issledovatel'skiy institut morskogo-rybnogo khozyaystva i okeanografii. Predstavleno akademikom Ye. N. Pavlovskim.
(Black Sea--Anchovies)

PAVLOVSKAYA, R.M.

Some characteristics of the yield of individual generations of the anchovy (Engraulis encrasicholus L.) of the Black Sea. Vop. ekol. 5:156-157 '62. (MIRA 16:6)

1. Azovo-Chernomorskiy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii, Kerch'.
(Black Sea--Anchovies)

PAVLOVSKAYA, R. M., Cand Biol Sci -- (diss) "Biological reproduction of the Black Sea anchovy." Odessa, 1960. 19 pp; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Odessa State Univ im I. I. Mechnikov); 200 copies; price not given; (KL, 28-60, 159)

AUTHOR: Pavlovskaya, R. M. 307/ 20-120-2-55/63

TITLE: On the Survival of Anchovy Larvae (Engraulis Encrasicholus Z.) in the North-Western Part and Other Regions of the Black Sea in the Years 1954-1955, as Dependent on Feeding-Conditions (O vyzhivayemosti lichinok khamsy v severo-zapadnoy chasti i v nekotorykh drugikh rayonakh Chernogo morya v 1954-1955 gg. v zavisimosti ot kormovykh usloviy)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 120, Nr 2, pp. 415-418 (USSR)

ABSTRACT: The problem of the factors which influence the numerical fluctuation of the main kinds of the economically important fishes remains little researched. One of the main causes determining fluctuations as mentioned in the title, is the survival of earlier stages of development, especially the survival of the larvae during the first stage of active feeding (reference 1). In summer 1954-1955 the mentioned conditions were studied by means of analyses of the intestinal contents. At the same time the amount of feeding-objects was determined in 1 m^3 of sea-water. The composition

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On the Survival of Anchovy Larvae (Engraulis Encrasicholus Z.) in the North-Western Part and Other Regions of the Black Sea in the Years 1954-1955, as Dependent on Feeding-Conditions

SOV/20-120-2-55/63

of the food of the anchovy was studied already earlier by the author (reference 1). The 4-10 mm big anchovy-larvae feed on small, little movable forms of zooplankton. The composition of the food according to quality is not rich and remains unchanged from year to year. In order to be able to characterize the feeding-conditions the author used the number of those food-objects in 1 m^3 of water, on which the larvae feed during the stage of development concerned. The density of feeding-organisms was larger in 1954 than in 1955, so that the indices of intensity of the feeding of larvae were higher in 1954 (table 1). The feeding-organisms were also more regularly distributed in 1954 (figure 1). In the region of the estuary of the Dunay to Cape Tarkhankut were 5-14 thousand individuals per m^3 (figure 1). The anchovy-larvae were also in the same region (figure 2). The density of occurring of the feeding-objects and the feeding-intensity of the anchovy-larvae are closely related (figure 3).

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On the Survival of Anchovy Larvae (Engraulis Encrasicholus Z.) in the North-Western Part and Other Regions of the Black Sea in the Years 1954-1955, as Dependent on Feeding-Conditions

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The most intensive feeding of the larvae took place in 1954, when the density was 14000 per m^3. At a number of 5-6000 organisms the feeding-intensity decreased rapidly and at a number of organisms below 1000 per m^3 larvae with empty intestines were found. In July 1955 the larvae fed intensively only in a small region (figure 1) whereas in other regions they had to starve. This was also the reason why the velocity of the increase in weight was slower in 1955 than in 1953-1954. Also older larvae of 10-25 mm length found less food. The minute feeding-intensity in July-August 1955 led also to a reduced survival in that year. In the region around the Krym and in the eastern part of the sea the feeding-conditions were essentially better. In August the young of the anchovy were distributed over the whole region of the sea. According to observations the following conclusions were possible: In years of unfavourable hydrometeorological conditions the development of the feeding-zooplankton delays and takes place in August. Thus an

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On the Survival of Anchovy Larvae (Engraulis Encrasicholus Z.) in the North-Western Part and Other Regions of the Black Sea in the Years 1954-1955, as Dependent on Feeding-Conditions SOV/20-120-2-55/63

incongruity of the mass-hatching of the anchovy-larvae occurs which leads to the death of greater amounts. As example the years 1949, 1952 and 1955 are taken where in spite of considerable amounts of spawn the new generation was small in number. There are 1 figure, 3 tables and 1 Soviet reference.

ASSOCIATION: Azovsko-chernomorskiy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii (Azov-Black Sea Scientific Research Institute for Marine Fish Economy and Oceanography)

PRESENTED: February 6, 1958, by Ye. N. Pavlovskiy, Member, Academy of Sciences USSR

SUBMITTED: July 19, 1956

Card 4/4 1. Anchovy—Nutrition 2. Anchovy—Survial factors

PAVLOVSKAYA, R. M.

"Spawning of Commercial-Grade Fish in the Karkinitskiy Bay and in Other Regions of the Black Sea," Dok. AN, 70, No. 2, 1950. Azov-Black Sea Sci. Res. Inst. Deep-Sea Fishing Ind. & Oceanography, -c1950-.

PAVLOVSKAYA, E. N.

Fishes

Multiplication of Black Sea Spratttus sprattus phalericus (Risso)., Dokl. AN SSSR, 82, no. 1, 1952.

Axovsko-Chernomorskiy Nauchno-Issled Vatel'skiy Institut Morskogo Rybnogo Khozyaystva I Okeanografii

Rcd. 24 Oct. 1951

SO: Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

L 2372-66 EWT(1)/FCC GW

ACCESSION NR: AP5020855 UR/0166/65/000/004/0033/0039

AUTHOR: Pavlovskaya, S. A.

TITLE: Computing the effect of inclination of a frontal surface in calculating the geopotential field

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 4, 1965, 33-39

TOPIC TAGS: weather forecasting, meteorology, climatology, air mass

ABSTRACT: A means for computing the effect of the slope of a frontal surface in calculating geopotential fields and vertical velocities is described. The work makes use of the atmospheric model proposed by V. P. Sadokov (K uchetu vliyaniya frontal'nykh razdelov pri kratkosrochnom prognoze davleniya i vertikalnykh tokov, Trudy TsIP, vyp. 60, M., Gidrometeoizdat, 1957). The atmosphere is viewed as a liquid consisting of a hot and a cold mass separated by an inclined frontal surface. The frontal surface is a plane passing through the origin of coordinates; it is expressed by the equation $\zeta = z(x,y,t)$. The hydrothermodynamics conditions are expressed in the set of equations

$$\frac{du}{dt} = -\frac{1}{\rho}\frac{\partial p}{\partial x} + lv;$$

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$$\frac{dv}{dt} = -\frac{1}{\rho}\frac{\partial p}{\partial y} - lu;$$

$$\frac{\partial p}{\partial z} = -g\rho;$$

$$\frac{\partial \rho}{\partial t} + \frac{\partial \rho u}{\partial x} + \frac{\partial \rho v}{\partial y} + \frac{\partial \rho w}{\partial z} = 0;$$

$$\frac{\partial T}{\partial t} - \frac{\gamma_a}{g\rho}\cdot\frac{\partial p}{\partial t} = 0;$$

$$p = \rho RT.$$

Several boundary conditions are established, along with the vorticity equation and definitions of variables and indices. A generalized form of the problem is expressed as a Poisson equation subject to several limiting conditions. Geopotential is expressed in terms of frontal dimensions. The width dimension is solved through the use of a beta function method, where the width (for one case) is expressed as

$$\varphi_1 = \frac{1}{4\pi^3}\iiint G'A(x'xy'd\sigma)'$$

x, y, and σ are coordinate variables, G is given by

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ACCESSION NR: AP5020855

3

$$G' = \iint_{-\infty}^{+\infty} \left(\frac{e^{-\gamma|y-y'|}}{2\gamma} + C_1 e^{-\gamma} + C_2 C^{\gamma} \right) e^{ik_1(x-x')+ik_2(y-y')}\, dk_1, dk_2$$

and the values C, C_1, and C_2 are computed constants. Some lengthy expressions are given for computing required constants. The author proposes that the computational burden be handled by a digital computer. Orig. art. has: 26 equations.

ASSOCIATION: Institut matematiki im. V. I. Romanovskogo, AN UzSSR (Institute of Mathematics, AN UzSSR)

44,55

SUBMITTED: 01Feb65 ENCL: 00 SUB CODE: ES, MA

NO REF SOV: 005 OTHER: 000

ISVK

Card 3/3

VERTSMAN, G.Z., kand. tekhn. nauk; PANTELEYEV, P.I., kand. tekhn. nauk; GOMOLYAKO, I.M.; TAL', K.K.; GUSEVA, K.G.; LUGOVOY, P.A.; MASSAN, A.M.; GALKIN, N.V.; SAPRYGINA, G.M.; CHESNOKOV, D.S.; DROZDKOV, V.I.; IZYUMOV, P.S.; ZAK, B.O.; KOROGID, P.Ye.; MAKSIMOVICH, L.N.; ZBOROVSKAYA, M.I.; PAVLOVSKAYA, S.A.; BORISOV, A.V.; SELIVANETS, N.Ye.; ITKES, V.M.; YATSKEVICH, Ya.D.; KOZYRSKIY, N.P.; NIKITIN, V.D.; NEKLEPAYEVA, Z.A., inzh., red.; MEDVEDEVA, M.A., tekhn.red.

[Design and planning of railroad stations and junctions] Proektirovanie zheleznodorozhnykh stantsii i uzlov; spravochnoe i metodicheskoe proizvodstvo. Moskva, Transzheldorizdat, 1963. 443 p. (MIRA 16:12)

1. Nauchno-issledovatel'skiy institut transportnogo stroitel'stva (for Guseva). 2. Gosudarstvennyy institut tekhniko-ekonomicheskikh izyskaniy i proyektirovaniya zheleznodorozhnogo transporta (for Zak). 3. Kiyevskiy gosudarstvennyy proyektno-izyskatel'skiy institut (for Kozyrskiy). 4. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta Im. I.V. Stalina (for Nikitin).

(Railroad engineering)

ACC NR: AP7001177 SOURCE CODE: UR/0166/66/0[illegible]005/0033/0040

AUTHOR: Pavlovskaya, S. A.

ORG: Institute of Mathematics im. V. I. Romanovskiy AN UzSSR (Institut matematiki AN UzSSR)

TITLE: An application of the line method for solving the problem on the frontal surface in computing the geopotential field

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 5, 1966, 33-40

TOPIC TAGS: finite difference, atmospheric geopotential, atmospherics, atmospheric front, Lagrange equation

ABSTRACT: The technique of substituting a sum for an integral and a finite difference for a derivative is applied to the problem of geopotential field computation. Errors encountered in the use of the Buleyev-Marchuk method are reduced through a rule proposed by M. I. Yudin (V. Tr. GGO., L., Gidrometeoizdat, vyp. 71, 1957). This rule consists of the substitution of finite difference for derivatives not only on the right-hand side of the equations, but also on the left-hand side. Influence functions are then defined on vertical lines passing through node points of the network. The author considers the atmosphere as a fluid consisting of hot and cold air masses divided by a sloping frontal surface. This surface is a plane passing through the origin of coordinates, and, in the general case, having the equation $\xi = z(x,y,t)$.

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The solution for each air mass is found separately, and then the solutions are "blended" at the frontal surface by means of boundary conditions. The basic system of equations is that obtained by S. A. Pavlovskaya (Izv. AN UzSSR, seriya fiz-mat. nauk, 1965, No. 4). The finite differences method is applied to a right-triangular grid such as is shown in Fig. 1.

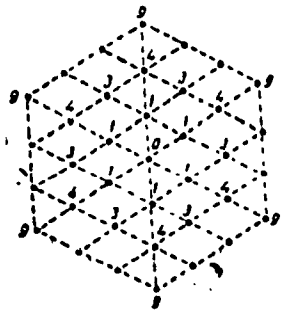


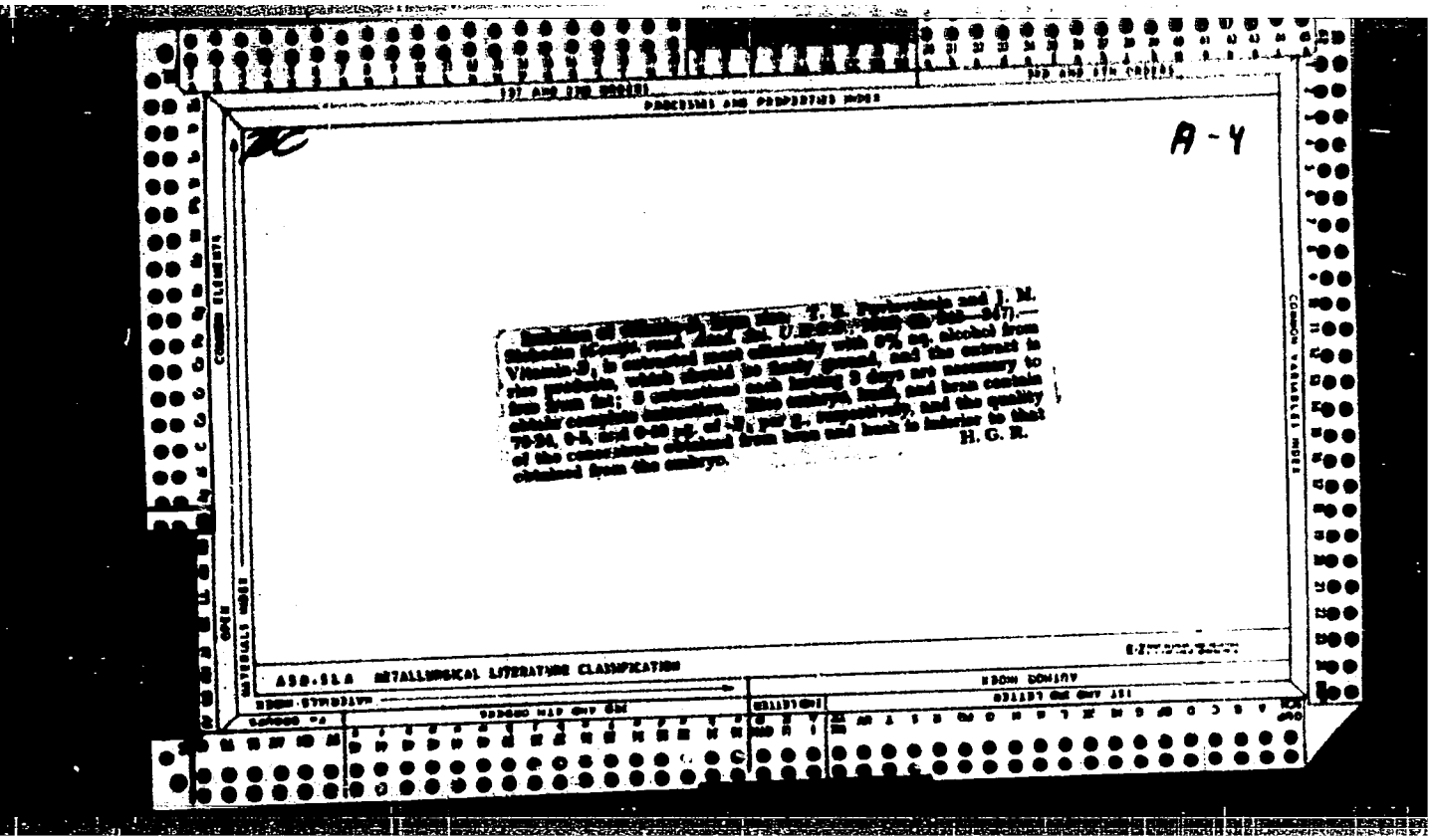
Fig. 1.

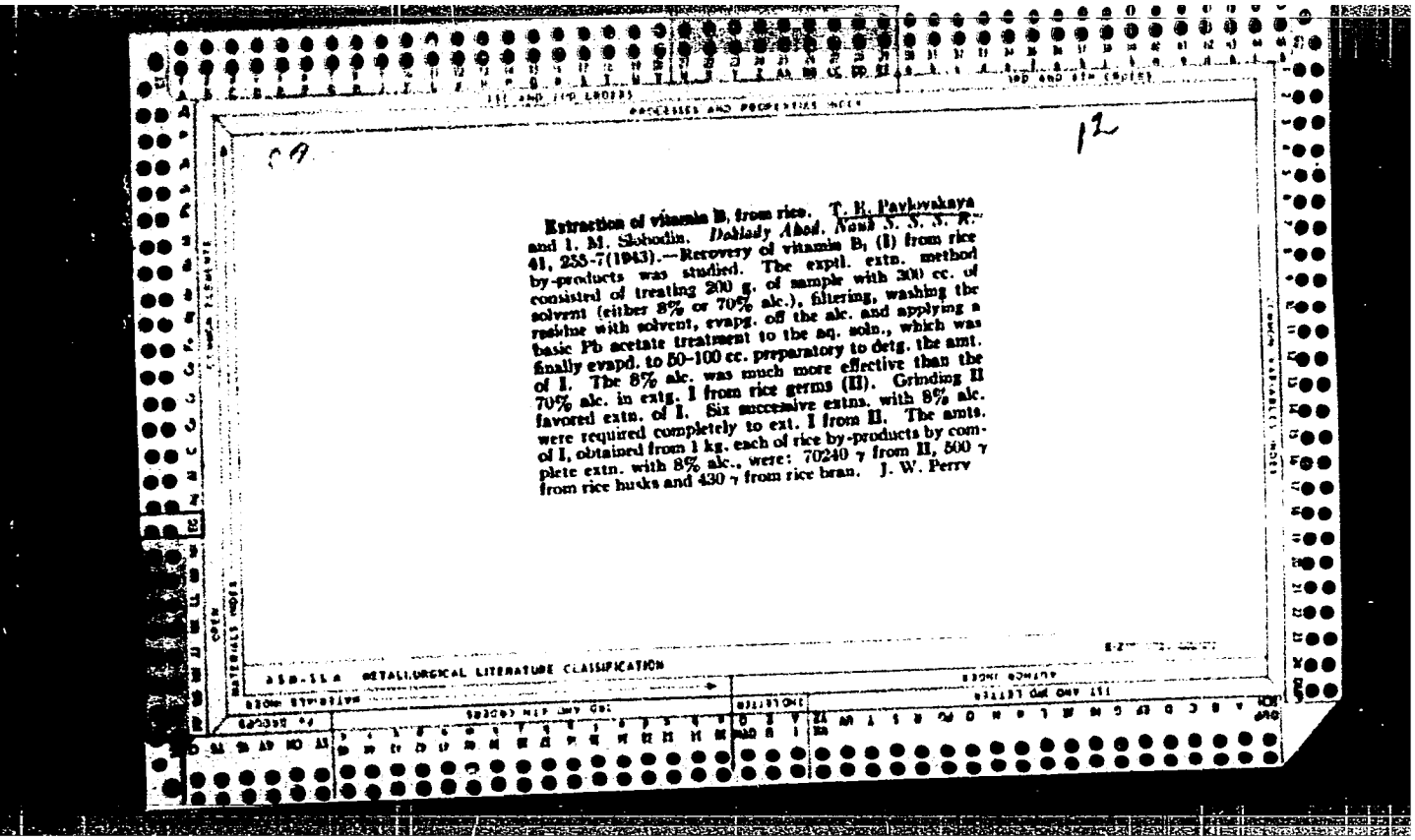
A general solution is worked out, using the approach stated above, and the Lagrange method is used for evaluating certain constants appearing in the general solution. The trapezoidal rule is used for evaluating certain integral terms. Orig. art. has: 1 figure and 13 equations.

SUB CODE: 04/ SUBM DATE: 14Dec65/ ORIG REF: 004

ZARETSKIY, Ye.M., kand.tekhn.nauk; PAVLOVSKAYA, T.G., inzh.

Hard anodizing of sintered aluminum powder. Vest.mashinostr. 43 no.11: 21-22 N '63. (MIRA 17:2)





Extraction of vitamin B, from rice. T. B. Pavlovskaya and I. M. Skobodin. *Doklady Akad. Nauk S. S. S. R.* 41, 255-7(1943).—Recovery of vitamin B_1 (I) from rice by-products was studied. The expt. extn. method consisted of treating 200 g. of sample with 300 cc. of solvent (either 8% or 70% alc.), filtering, washing the residue with solvent, evapg. off the alc. and applying a basic Pb acetate treatment to the aq. soln., which was finally evapd. to 50–100 cc. preparatory to detg. the amt. of I. The 8% alc. was much more effective than the 70% alc. in extg. I from rice germs (II). Grinding II favored extn. of I. Six successive extns. with 8% alc. were required completely to ext. I from II. The amts. of I, obtained from 1 kg. each of rice by-products by complete extn. with 8% alc., were: 70240 γ from II, 500 γ from rice husks and 430 γ from rice bran. J. W. Perry

CA

Spontaneous ignition of mixtures of acetaldehyde and oxygen with addition of acetyl hydroperoxide. I. E. Pavlovskaya and N. M. Emanuel. *Doklady Akad. Nauk S.S.S.R.* 58, 1683-5(1947).--Mixts. of AcH with 0.75 moles O were studied at 190° in glass by using pressure variation as a criterion of the reaction. At the point ΔP_m the compn. of the mixt. is AcH 31, AcOOH 21, and AcOH 12 mm. Hg. A bright flash occurs immediately on introduction of the peroxide vapor into the hot mixt. The kinetics of the reaction were studied, but the results are not cited.

G. M. Kosolapoff

PAVLOVSKAYA, T. E.

"The Hydrogen Bond in the Propicnic Acid Peroxide and its Kinetic Effect," Dokl. AN SSSR, 70, No. 6, 1950

Inst. Chemical Physics, Acad. Sci. USSR

CA

11A

Alteration of the infrared spectra of proteins on irradiation with ultraviolet. A. G. Pasynskii and T. S. Pavlovskaya. *Kolloid. Zhur.* 14, 279-49(1952).—Thin films of proteins on TlCl + TlBr crystals were irradiated with ultraviolet for several hrs. and their infrared spectra compared with those before irradiation. Human serum albumin (I); the absorption line at 2.96μ was eliminated by irradiation, the lines at 3.01, 3.22, and 3.37 were shifted to 3.05, 3.3, and 3.43 and weakened (e.g. by 30%) and the lines at 6.10, 6.50, and 7.25 were weakened. Horse serum globulin (II): both absorption bands (at 2.95-3.25 and 6.0-6.6) were weakened approx. 15%. Gelatin (III): lines at 3-3.05, 6.1, 6.5, 6.85 (weak), 7.5 (weak), 8.1, and 9.2 (weak) were weakened by 4-27%. Casein: lines at 3.0, 3.22 (weak), 3.36, 6.05, 6.5, and 6.93 were weakened 10-17%. Cystine-HCl: lines at 3.35, 5.9, 6.7, and 8.25 were weakened, and those at 6.25 and 7.1 intensified. When I was irradiated in aq. soln. rather than as dry film, the weakening of the absorption was much greater. Soln. of I and III in 3-5 *M* $HCONH_2$ weakened the absorption similarly to ultraviolet irradiation, but the absorption of II was little affected in $HCONH_2$. Irradiation of I and II after treatment with $HCONH_2$ weakened the absorption, while the absorption of III was unchanged. The changes of absorption are related to rupture of weak intramol. bonds. I. I. Rikerman

PAVLOVSKAYA,T.Ye.; PASYNSKIY,A.G.

Changes in the ultraviolet and infrared spectra of proteins due to the effects of radiation. Koll. zhur.17 no.4:305-314 Jl-Ag'55. (MLRA 8:11)

1. Institut biokhimii Akademii nauk SSSR imeni A.N.Bakh, Moscow
(X rays--Physiological effect)

PAVLOVSKAYA, T.E.

7

Ozonization of unsaturated compounds. I. Preparation of curves of the absorption of ozone by unsaturated compounds. A. I. Yakubchik, N. G. Kasatkina, and T. E. Pavlovskaya (State Univ., Leningrad). *Zhur. Obshchei Khim.* 25, 1473-7(1955).—An app. consisting of a series of absorbers contg. the sample in $CHCl_3$ and KI solns. in phosphate buffer is employed for quant. detn. of O_3 uptake by unsatd. compds. The detn. is based on titration of iodine liberated by the O_2-O_3 stream before and after passing through the test soln. The end of the reaction is reached when the 2 titers are equal. Curves of the kinetics of absorption of O_3 in several compds. are shown, including $(:CMe_2)_2$, elaidic acid, diallyl, $(MeC{:})_2$, $(PhC{:})_2$, allyl alc., 2-methyl-3-hepten-6-one, 4,6-dimethyl-6,8-menthadiene, $Me_2CC{:}CH$, $PhCH{:}CH_2$, 2,4-hexadiene, $Me_2CC{:}CMe$, $MeCH{:}CHCO_2Me$, piperylene, 3-ethenylcyclohexene. Usually the absorption in the several unsatd. bonds shows different rates detectable on the curves. The uptake of O_3 is generally the theoretical, except for cases listed below with % O_3 absorbed relative to theoretical: 2-methyl-2-hepten-6-one, 144.0%, 4,6-dimethyl-6,8-menthadiene 185%, $Me_2CC{:}CH$ 112.1%, $MeC{:}CCMe$, 120%, $MeCH{:}CHCO_2Et$ 119.3%.

G. M. Kosolapoff

(2)

Pavlovskaya, T. Ye.

USSR/Biology - Biochemistry

Card 1/1 Pub. 22 - 37/52

Authors : Pavlovskaya, T. Ye.; Volkova, M. S.; and Pasynskiy, A. G.

Title : Change in S^{35} methionine blood-serum bonds during denaturing by radiation and heating

Periodical : Dok. AN SSSR 101/4, 723-726, Apr 1, 1955

Abstract : It is shown, on the basis of experimental data, that the denaturing of serum albumina by radiation with ultraviolet or x-rays, and by heating is accompanied by an increased absorption of the marked methionine regardless of whether the serum is pure or under the effect of the microbe factor. The increased adsorbability during denaturing was found to be due to the liberation of new active groups which become saturated by each other. The nature of such active groups is described. Four USSR references (1948-1955). Graphs.

Institution : Acad. of Sc., USSR, The A. N. Bakh Inst. of Biochemistry

Presented by : Academician A. I. Oprain, January 14, 1955

PAVLOVSKAYA, T. YE.

2

Protective action of some substances in the irradiation of protein solutions. T. E. Pavlovskaya and A. G. Pasynskii (A. N. Bakh Inst. Biochem., Acad. Sci. U.S.S.R., Moscow). *Kolloid. Zhur.* 18, 683-9(1956).—Substance A protects substance B if cs for A is considerably larger than cs for B (c is concn., and s rate of reaction with the radicals produced by irradiation). If $(cs)_A \ll (cs)_B$, A does not protect B, but B protects A. One g. egg albumin contained 5.7 mg. SH (as cystine) before, 3.4 mg. SH after irradiation with 150,000 röntgens, and 1.2 after irradiation with 2×10^{23} ergs of ultraviolet; but in the presence of 0.5% cystine or 0.5% ascorbic acid irradiations had no effect. In these instances each radical produced by x-rays and each radical produced by UV quanta reacted with the substrate, and the protection afforded by cystine and ascorbic acid was due to their relatively high s. $CS(NH_2)_2$, at an equal c, had no protective action; its s must be small. Large excess of p-tartrate is needed to protect catalase (Forsberg, *C.A.* 41, 462*d*); P. and P. showed that small amts. of catalase protected pyrotartaric acid. According to Shekhtman, *et al.* (*C.A.* 45, 2783*a*), about 1 part of glucose (I) was needed to halt the destruction of 1 part of methylene blue (II); and now protection of I by II was demonstrated. A method of analysis for SH in protein in the presence of cysteine is described.

—I. I. Bikerman

PAVLOVSKAYA, T. E., and PASSINSKIY, A. G.

"The Primary Formation of Amino Acids in ultraviolet rays and in electric Discharge," a paper presented at the International Symposium on the Origin of Life, Moscow, 19-24 Aug 1957.

PAVLOVSKAYA, T.Ye.; PASYNSKIY, A.G.

Effect of ionizing radiations on protein solutions in the presence of air and in vacuum [with summary in English]. Biokhimiia 22 no.1/2:266-273 Ja-F '57. (MIRA 10:7)

1. Institut biokhimii im. A.N.Bakha Akademii nauk SSSR, Moskva.
(ROENTGEN RAYS, effects,
on serum albumin solution in presence of air & in vacuum (Rus))
(SERUM ALBUMIN,
eff. of x-rays on solution in presence of air & in vacuum (Rus))

PAVLOVSKAYA, T. Ye. Cand Biol Sci -- (diss) "Radiation and Chemical Problems of the Effect of ~~the~~ Radiation [redacted] ~~of~~ on Protein Solutions." Mos, 1957. 15 pp 20 cm. (Academy of Sciences USSR, Inst of Biochemistry im A. N. Bakh), 110 copies (KL, 25-57, 111)

PAVLOVSKAYA, T. Ye.

PRIKHOT'KO, A F

24(7) P 3 PHASE I BOOK EXPLOITATION SOV/1365

L'vov. Universytet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies printed. (Series: Its: Pizychnyy zbirnyk, vyp. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Gazer, S.L.; Tech. Ed.: Saranyuk, T.V.; Editorial Board: Landsberg, G.S., Academician (Resp. Ed., Deceased), Neporent, B.S., Doctor of Physical and Mathematical Sciences, Fabelinskiy, I.L., Doctor of Physical and Mathematical Sciences, Fabrikant, V.A., Doctor of Physical and Mathematical Sciences, Kornilovich, V.G., Candidate of Technical Sciences, Rayskiy, S.M., Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K., Candidate of Physical and Mathematical Sciences, Miliyanchuk, V.S., Candidate of Physical and Mathematical Sciences, and Glauberman, A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Card 16/30

PAKLOVSKAYA, T. E.

Ozonization of unsaturated compounds. III. Addition of ozone to the inner and the outer double bonds in butadiene rubber. A. I. Yakubchik, N. G. Kasatkina, and T. E. Pavlovskaya (State Univ., Leningrad). *Zhur. Obshchei Khim.* 27, 1467–9(1957); *J. C.A.* 51, 14502i.—The uptake of O_3 in $CHCl_3$ soln. of butadiene rubber was examd.; the results, shown in a kinetic curve, clearly show the absence of a break in the rate curve. Ozonization to the extent of 25–100% of the double-bond content showed that the selectivity of uptake of O_3 does not exist. The external or outer double bonds, i.e., those in side chains, react somewhat more readily than those within the polymer chain. The estns. were made by hydrolysis of the ozonides and detn. of resulting HCO_2H and COH_2. G. M. K.

PAVLOVSKAYA, T.Ye.

"Problems Connected with the Chemical Radiation Effect of Radiations Upon Albumen Solutions."

dissertation defended for the degree of Candidate of Biological Sciences at the Inst. for Zoology.

Defense of Dissertation (Jan-Jul 1957)
Sect. of Biological Sciences
Vest. AN SSSR, 1957, v. 27, No. 12, pp. 115-117

OPARIN, A.I., akademik, red.; BRAUNSHTEYN, A.Ye., red.; PASYNSKIY, A.G., prof., red.; PAVLOVSKAYA, T.Ye., kand.biolog.nauk, red.; ZHAMENSKAYA, M.P., red.izd-va; BUNKIN, A.A., red.izd-va; POLENOVA, T.P., tekhn.red.

[Origin of life on the earth; transactions of the international symposium of August 19-24, 1957, in Moscow] Vozniknovenie zhizni na zemle; trudy mezhdunarodnogo simpoziuma 19-24 avgusta 1957 goda, Moskva. Moskva, Izd-vo Akad.nauk SSSR, 1959. 671 p. (MIRA 12:12)

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(LIFE--ORIGIN--CONGRESSES)